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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,113	03/16/2004	Satoshi Seo	12732-220001 / US7048	9191

26171 7590 09/09/2009  
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EXAMINER
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GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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09/09/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/801,113	<b>Applicant(s)</b> SEO ET AL.	
	<b>Examiner</b> Dawn Garrett	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-27 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3 and 9-27 is/are allowed.
- 6) ☒ Claim(s) 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7-6-09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

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### **DETAILED ACTION**

1. This Office action is responsive to the request for reconsideration received July 6, 2009.

No claims were amended in the response received July 6, 2009. Claims 5-7 remain withdrawn as non-elected. Claim 8 is currently under consideration. Claims 1-3 and 9-27 are allowed as previously set forth in the prior Office actions.

2. The replacement drawing received July 6, 2009 is acknowledged and is approved.

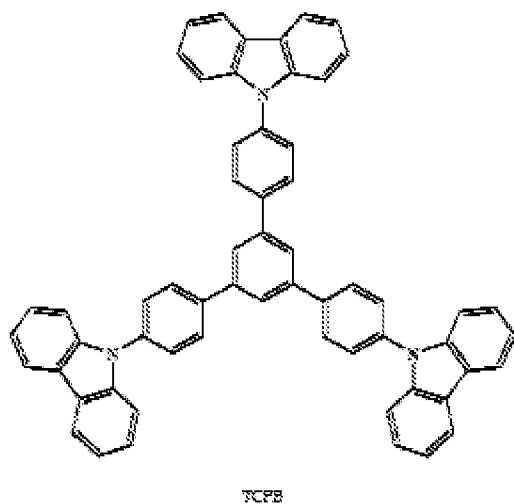
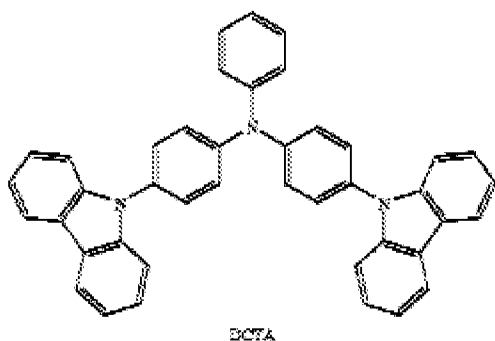
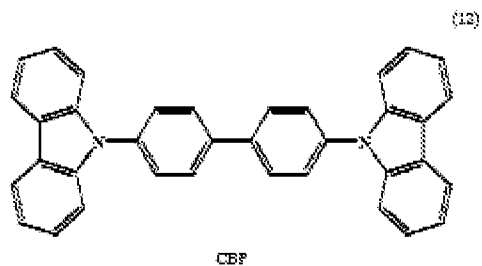
#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

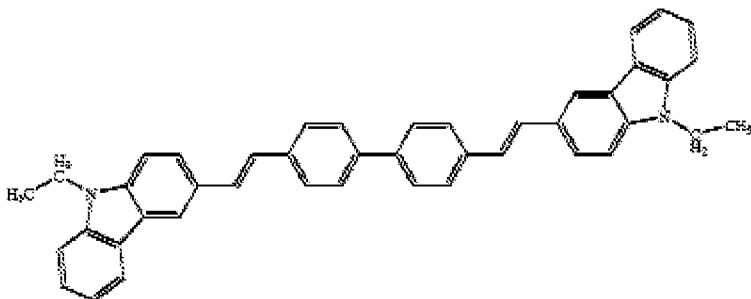
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8 is again rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazawa et al. (US 2003/0127974 A1) in view of Aizawa et al. (US 2003/0127656 A1).

Miyazawa et al. teaches organic electroluminescent devices comprising host materials such as CBP, DCTA and TCPB (see par. 206-207, page 20):



The luminous layer may be formed of the above host materials and fluorescent pigment and luminescent substances (see par. 207 and par. 198-204). Miyazawa et al. does not expressly teach the fluorescent pigment may be a carbazole-containing luminescent compound. Aizawa et al. teaches, in analogous art, BCzVBi as a luminescent material for use in a blue light emitting layer (see par. 81):



It would have been obvious to one of ordinary skill in the art to have formed a device according to Miyazawa et al. having a host such as CBP, DCTA, or TCPB and to have selected a luminescent substance such as BCzVBi as the luminescent material and to have expected to achieve a well-functioning device with a predictable result, because Miyazawa et al. teaches the formation of a light emitting layer comprising CBP, DCTA or TCPB together with further light emitting substances to form a light emitting layer for a light emitting device.

### ***Response to Arguments***

5. Applicant's arguments filed July 6, 2009 have been fully considered but they are not persuasive.

Applicant argues the primary reference, Miyazawa, does not suggest a carbazole-containing guest material. The examiner submits Miyazawa clearly teaches the device may comprise a fluorescent guest material. Applicant argues the secondary reference, Aizawa, does not suggest a carbazole-containing host material. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Secondary reference, Aizawa, is relied upon to teach a fluorescent material that

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is a carbazole derivative. The host material of Miyazawa and the guest material of Aizawa are materials known in the art for use in a light emitting layer. Applicant argues the combination of materials is from an essentially infinite number of possible substances. The examiner notes that the fact that a reference "discloses a multitude of effective combinations does not render any particular formulation less obvious." *Merck & Co., Inc. v. Biocraft Labs*, 874 F.2d 804, 808 (Fed. Cir. 1989) *In re Corkill*, 771 F.2d 1496, 1500 (Fed. Cir. 1985) (obviousness rejection of claims affirmed in light of prior art teaching that "hydrated zeolites will work" in detergent formulations, even though "the inventors selected the zeolites of the claims from among 'thousands' of compounds")); *see also, In re Susi*, 440 F.2d 442, 445 (CCPA 1971) (obviousness rejection affirmed where the disclosure of the prior art was "huge, but it undeniably include[d] at least some of the compounds recited in appellant's generic claims and [was] of a class of chemicals to be used for the same purpose as appellant's additives."). Furthermore, "[A] reference disclosure must be evaluated for all that it fairly [teaches] and not only for what is indicated as preferred." *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969). Applicant also argues impermissible hindsight reasoning. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. *See In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The materials of instant claim 8 are materials known in the art for the purpose of use in a light emitting layer of a device. Applicant

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claims a combination that only unites old elements with no change in the respective functions of those old elements, and the combination of those elements yields predictable results; absent evidence that the modifications necessary to effect the combination of elements is uniquely challenging or difficult for one of ordinary skill in the art, the claim is unpatentable as obvious under 35 U.S.C. 103(a). *Ex Parte Smith*, 83 USPQ2d at 1518-19 (BPAI, 2007) (citing *KSR*, 127 S.Ct. at 1740, 82 USPQ2d at 1396). There is no evidence of record to demonstrate unexpected results commensurate in scope with the breadth of claimed subject matter of claim 8. Applicant suggests Figures 8-10 establish improved results for a guest/host combination with a common skeleton vs. a guest/host combination without a common skeleton. The comparisons of Figures 8-10 do not appear to be directed to a comparison of materials comprising a carbazole portion as claimed in instant claim 8. Accordingly, the results are not sufficient for showing unexpected results for claim 8. Also, the examples in general are directed to very specific compounds in very specifically constructed devices. Claim 8 is very broad and encompasses a multitude of possible carbazole-containing materials. Also, the examples set forth devices with very specific further layers and claim 8 only requires electrodes and an electroluminescent layer. None of the examples of record are commensurate in scope with instant claim 8 and accordingly, do not conclusively show unexpected results.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dawn Garrett/  
Primary Examiner, Art Unit 1794

September 1, 2009